

Mineral Industry Surveys

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SULFUR IN APRIL 2006

During the month, production of recovered elemental sulfur was 670,000 metric tons, according to the U.S. Geological Survey. April 2006 production was 3% higher than that of March 2006 and 12% lower than that of April 2005. Shipments were about the same as those of March 2006. Producers' ending stocks for April 2006 were 162,000 tons.

Sulfur production was significantly lower than it was in April 2005 for a few reasons. Sulfur production at petroleum refineries has not recovered to the level experienced before two major hurricanes struck the Gulf Coast in August and September 2005 and a few refineries were down for maintenance. Acid gas reinjection at a large natural gas operation in Wyoming reduced sulfur production from that source by about 30%. Production

from refineries is starting to recover, but recovery from natural gas operations is not predicted to increase significantly.

Import and export data for April 2006 were not available at the time of publication and will be published in the Sulfur in May 2006 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for March 2006 were estimated to be 243,000 tons; exports were 68,000 tons. Imports of sulfuric acid for March 2006 were 255,000 tons; exports were 23,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2005:					
January-December	6,940 ^r	1,810	8,750 ^r	8,720 ^r	XX
January-April ^f	2,310	648	2,950	2,950	XX
April	601 ^r	157	758 ^r	759 ^r	168
May	626 ^r	159	785 ^r	772 ^r	178 ^r
June	621 ^r	158	778 ^r	775 ^r	178
July	623 ^r	153	776 ^r	776 ^r	175
August	647	163	811 ^r	812 ^r	175
September	489 ^r	141	630 ^r	634 ^r	165
October	478 ^r	136	614 ^r	614 ^r	158
November	555 ^r	129	683 ^r	671 ^r	167 ^r
December	593 ^r	120	714 ^r	721 ^r	156 ^r
2006:					
January	569 ^r	114	682 ^r	674 ^r	160 ^r
February	511 ^r	114	625 ^r	630 ^r	151 ^r
March	541 ^r	112	653 ^r	655 ^r	143 ^r
April ^p	550	120	670	653	162
Total	2,170	460	2,630	2,610	XX

^pPreliminary. ^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2005:								
January-December	1,970	33,500	427	18,600	409	16,800	2,790	70,500
January-March	420	6,520	121	4,640	93	3,430	654	14,900
March	145	2,320	40	1,640	--	--	185	4,050
April	165	2,530	20	1,840	38	1,440	249	5,830
May	170	1,890	40	1,570	40	1,600	251	5,140
June	165	2,460	40	1,780	30	1,340	235	5,670
July	170	2,650	40	1,490	38	1,440	218	5,610
August	170	2,820	20	808	31	1,280	221	5,040
September	160	3,020	39	1,600	41	1,670	241	6,360
October	185	3,570	44	1,900	37	1,620	227	7,770
November	180	3,680	29	1,130	20	819	233	5,710
December	185	4,360	34	1,890	41	2,180	261	8,500
2006:								
January	165	4,190	58	2,520	37	1,680	260	8,460
February	150	3,910	43	1,810	40	1,650	233	7,450
March	165	3,970	44	2,010	34	1,580	243	7,690
Total	480	12,100	145	6,340	111	4,910	736	23,600

^eEstimated. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2005:									
January-December	2,000	656	80,700	398	129	7,920	2,660	871	102,000
January-March	530	174	19,300	124	41	2,300	715	234	25,900
March	183	60	7,080	39	13	696	254	83	8,590
April	191	63	7,770	25	8	497	250	82	9,660
May	158	52	6,370	34	11	606	192	63	7,080
June	144	47	5,360	26	8	445	189	62	6,380
July	168	55	6,840	9	3	187	213	70	7,790
August	156	51	6,490	19	6	350	196	64	9,150
September	169	55	6,890	35	11	626	241	79	8,260
October	178	58	7,880	60	20	1,730	253	83	11,600
November	138	45	5,910	38	12	674	181	59	6,820
December	172	56	7,910	28	9	504	229	75	9,640
2006:									
January	194	63	7,800	16	5	444	244	80	9,030
February	161	53	6,550	23	7	416	201	66	7,670
March	198	65	7,760	19	6	454	255	83	9,050
Total	553	181	22,100	58	18	1,310	700	229	25,700

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2005:					
January-December	683	55,900	338	108	29,500
January-March	135	13,000	72	23	6,090
March	41	6,270	31	10	2,270
April	94	6,010	51	17	3,280
May	16	1,850	26	8	2,560
June	56	5,920	38	12	3,630
July	64	4,520	24	8	1,920
August	71	5,330	25	8	2,600
September	42	3,470	26	8	2,810
October	104	7,070	32	10	3,020
November	14	2,940	7	2	992
December	87	5,790	37	12	2,560
2006:					
January	55	4,440	14	4	671
February	15	1,900	38	12	2,400
March	68	4,710	23	8	2,000
Total	138	11,000	75	24	5,070

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2005:			
January-December	8,060 ^r	2,790	10,900 ^r
January-March	2,050	659	2,520 ^r
March	715 ^r	185	900 ^r
April	665 ^r	249	914 ^r
May	756 ^r	251	1,010 ^r
June	719 ^r	235	954 ^r
July	712 ^r	218	930 ^r
August	741 ^r	221	962 ^r
September	592 ^r	241	833 ^r
October	510 ^r	227	737 ^r
November	657 ^r	233	890 ^r
December	634 ^r	261	895 ^r
2006:			
January	619 ^r	260	879 ^r
February	615 ^r	233	848 ^r
March	587	243	830
Total	1,820	736	2,560

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	April 2006 ^p		March 2006		January - April 2006 ²		January - April 2005 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	21	22	22	23	79	81	82 ^r	82
Natural gas	1	1	1	1	5	5	7	7
Total	22	23	23 ^r	24 ^r	85	87	89 ^r	89 ^r
PAD 2:								
Petroleum and coke	73	72	79 ^r	81 ^r	314	314	323 ^r	324 ^r
Natural gas	3	3	3	3	13	13	14	14
Total	76	75	83 ^r	84 ^r	327	327	337 ^r	338 ^r
PAD 3: ³								
Petroleum and coke	339	328	338	334	1,340	1,330	1,450 ^r	1,450 ^r
Natural gas	39	39	35	35	143	143	169	172
Total	378	367	373	369	1,490	1,470	1,620 ^r	1,620 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	118	112	102	103	433	417	447 ^r	438 ^r
Natural gas	77	77	73	75	300	307	458 ^r	464 ^r
California	99	94	82	83	353	339	344 ^r	332 ^r
Total	195	189	175	178 ^r	733	724	905 ^r	902 ^r
Grand total	670	653	653 ^r	655	2,630	2,610	2,950	2,950

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2006			2005
	April	March	Total	total
Production	8.15 ^p	7.69 ^r	8.00 ^r	8.75 ^r
Shipments	7.94 ^p	7.71 ^r	7.94 ^r	8.72 ^r
Exports of sulfur	NA	0.80	0.56	0.58
Imports of sulfur:				
Canada	NA	1.94 ^e	1.95 ^e	1.97 ^e
Mexico	NA	0.52	0.59	0.45
Venezuela	NA	0.40 ^e	0.45 ^e	0.41 ^e
Total ²	NA	2.86 ^e	2.98 ^e	2.79 ^e
Export of H ₂ SO ₄	NA	0.27	0.30	0.31
Import of H ₂ SO ₄ :				
Canada	NA	2.33	2.24	1.87
Mexico	NA	0.22	0.24	0.40
Total ²	NA	3.00	2.84	2.66
Consumption: ³				
Domestic sources	NA	6.91	7.39	8.06 ^r
Imports	NA	2.86 ^e	2.98 ^e	2.79 ^e
Total	NA	9.77	10.37	10.85 ^r
Sulfur export values ⁴	NA	\$69	\$80	\$84
Sulfur import values: ⁴				
Canada	NA	\$24	\$25	\$17
Mexico	NA	\$46	\$44	\$41
Venezuela	NA	\$46	\$44	\$41
Average ²	NA	\$32	\$32	\$25
H ₂ SO ₄ export values ⁴	NA	\$87	\$68	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$39	\$40	\$40
Mexico	NA	\$24	\$23	\$20
Average ²	NA	\$35	\$37	\$38

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because April trade data were not available, April consumption was not determined.

⁴Average value per ton for most recent data available.